

**Abstract:**

A humidity control system (10) is disclosed which includes a refrigerant circuit (60). The refrigerant circuit (60) includes first and second absorbent-supported heat exchangers (61, 62) and performs a refrigeration cycle by the circulation of refrigerant. In addition, in the refrigerant circuit (60), the circulation direction of refrigerant is reversible. The first and second heat exchangers (61, 62) are disposed in a casing (11). In the humidity control system (10), the distribution route of air is changed such that a first air stream is passed through either one of the first and second heat exchangers (61, 61) that is functioning as an evaporator while a second air stream is passed through the other heat exchanger that is functioning as a condenser. A compressor (63), an expansion mechanism (65), and a four-way valve (64) in the refrigerant circuit (60) are disposed together with the heat exchangers (61, 62) in the casing (11).